Technical Overview of an Annotation Service for Medical Training in a Heterogeneous Healthcare Environment (1997) (Make Corrections)

Hartmut Benz, Steffen Fischer, Rolf Mecklenburg

(Enter summary)

Abstract: : DIANE is a multimedia service enabling users to instantly create multimedia presentations, to annotate them with various multimedia content and to navigate in the web of annotations. This paper presents the architecture of the first Java based prototype of the service and focuses on benefits and drawbacks of a Java based solution for such a system. 1 Introduction DIANE ("Design, Implementation and Operation of a Distributed Annotation Environment") is an EU-funded project of the ACTS... (Update)

Active bibliography (related documents): **More** **All**
0.7: DIANE - Hypermedia Documents in a Distributed.. - Benz, Fischer.. (1997) (Correct)
0.5: An Active Router Architecture for Multicast Video Distribution - Ralph Keller Sumi (2000) (Correct)
0.2: Architecture and Implementation of a Distributed.. - Benz, Fischer.. (1997) (Correct)

Similar documents based on text: **More** **All**
0.4: Asynchronously Replicated Shared Workspaces for a Multi-Media.. - Benz, Lijding (1998) (Correct)
0.4: Instant Authoring with Application Output.. - Benz, Fischer.. (1997) (Correct)
0.2: Management Of The Student-Computer Dialogue In Learning.. - Jean-Claude Tarby (Correct)

BibTeX entry: **(Update)**

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@techreport{ benz97technical,
    author = "H. Benz and S. Fischer and R. Mecklenburg",
    title = "Technical Overview of an Annotation Service for Medical Training in a H
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    year = "1997",
    url = "citeseer.ist.psu.edu/benz97technical.html" }
```

Citations (may not include all citations):
1577 Design Patterns - Elements of Reusable ObjectOriented Softwa.. (context) - Helm, Vlissides - 1995
24 Sun Microsystems (context) - JDK - 1997
6 DIANE: A Multimedia Annotation System (context) - Bessler, Hager
2 Application Output Recording for Instant Authoring in a Dist.. (context) - Fischer, Wenger
1 DIANE - Hypermedia Documents in a Distributed Annotation Env.. - Fischer, Dermler

Documents on the same site (http://www.informatik.uni-stuttgart.de/ipvr/vs/Publications/Publications.html): **More**
An Architecture for a Distributed Stream Synchronization Service - Helbig, Rothermel (1996) (Correct)
Intelligent Agents: An Emerging Technology for Next.. - Magedanz, Rothermel.. (1996) (Correct)
A Performance Model for Mobile Agent Systems - Straßer, Schwehm (1997) (Correct)

AC082: DIANE - Design, Implementation and operation of a Distributed Annotation Environment

Workplan References:

AC113; AC119; AC121

Area: A01

Main Objectives

Distributed Multimedia Services envisaged today in most cases distinguish sharply between service and content provider on one side and consuming users on the other side. Only a few applications have been realised strengthening the role of endusers both as content provider and consumer. Existing multimedia authoring systems are either application specific or allow solely combinations of media generated entirely by a user, as it is the case for multimedia mail. The goal of DIANE is to develop a multimedia service removing these deficits.

Technical Approach

DIANE is to realise this system for a distributed environment consisting of user terminals and annotation servers which are used for storing and accessing annotated documents. DIANE will incorporate a number of basic technologies. Prior to design work, DIANE will define a service architecture separating and relating various system components. Based on current standardisation activities, an assessment of multimedia document scripting and presentation approaches will be conducted for inclusion into DIANE. In particular, the architecture will define the relationship between application level functions (recording, scripting, presentation) and a generic synchronisation subsystem, the necessity of which is widely recognised for distributed multimedia system. DIANE will further design a security management subsystem to provide various mechanisms required to protect the annotation service from being misused. DIANE will include a data transport system allowing access to annotation servers both in real-time mode and in store and forward manner and which in particular is to support both ATM and more conventional narrow band network technologies at trial sites

Summary of Trial

Within DIANE the annotation service is to be installed and evaluated in two different settings including a teleradiology setting and a computing center providing "annotated" support to its users for interacting with complex computer applications. The selection of such diverse application areas will support the ultimate goal of DIANE as a widely applicable multimedia service. since the annotation environment will require real-time storage and retrieval services, the demonstration over a wide-area network will only be possible with the support of National Hosts. Value Added of the Project DIANE is conceived as a service allowing users to create, exchange and consume multimedia data easily. The basic concept to be supported by DIANE is that of a multimedia annotated document consisting of two distinct parts: recorded application output and annotation given by a user in various media, including text, audio, video and pointer movements. By providing generic techniques to record output of arbitrary applications, DIANE is to implement s system independent of any application context. In consequence, it defines an annotation recording tool which can be used in a generic manner and which presents users always the same user interface irrespective of the application to be annotated.

Participants

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Anvil

Annotation of Video and Spoken Language

(c) 2000-2003 by <u>Michael Kipp</u>

<u>Technical support</u> by
German Research Center for Artificial Intelligence (DFKI)

Anvil is a generic **video annotation tool**. Originally developed for Gesture Research, it has also proved suitable for research in the fields of Linguistics, Ethology, Anthropology, Psychotherapy, Human-Computer Interaction, Embodied Agents, Human-Computer Interaction (HCI) or Computer Animation. It offers frame-accurate, hierarchical multi-layered annotation with objects that contain attribute-value pairs. Layers and attributes are all user-defined. Thus, Anvil can accommodate arbitrary annotation schemes. Coding takes place on a time-aligned annotation board that can be customized with color-coding to allow efficient and intuitive annotation. Special features are cross-level links, non-temporal objects and a project tool for managing (search, export) a number of different annotations.

Anvil can read data from the widely used, public domain phonetic tools <u>PRAAT</u> and XWaves which allow precise and comfortable speech transcription. Anvil can display waveform and pitch contour. The latter must be imported from PRAAT. Anvil's output and general file exchange is all kept in XML. Special ASCII output can be used for import in statistical toolkits like SPSS. The Anvil system is written in Java and should run on Windows, Macintosh and Unix (Solaris/Linux) computers. Here's a <u>full description of Anvil</u> (including

screen shots), or have a look at the Anvil quick-reference card.

Anvil has been reviewed in a survey by the ISLE (International Standards for Language Engineering) project, extensions are being developed under the NITE (Natural Interactivity Tools Engineering) project. It is already in use at various research institutes world-wide.

How To Get It

The tool is free for research purposes. If you want to download it, send an e-mail to kipp@dfki.de with "anvil download" as the subject and with the following information:

- your name
- your institute (name, city, country)
- some words on your research and how Anvil would be used in it
- how you heard of Anvil (Internet, colleague, publication etc.)

This is for me to keep track of where and how Anvil is employed. In return I will send you the address of the download page and place you on a mailing list that will keep you informed about any Anvil updates.

Manual and Documentation

This is the official user manual describing the Anvil system (installation, concepts, user interface) and a quick-reference card describing essential elements at a glance:

o **Anvil 4.0 Manual** (10 Apr 2003, 52 pages)
Download manual as <u>pdf</u> (0.5 MB)
Download manual as <u>zipped postscript</u> (1.2 MB)

o **Anvil quick-reference Card** (24 Jul 2002, 2 pages)
Download as <u>pdf</u>.

o **Anvil 3.6 Manual** (24 Jul 2002, 51 pages)
Download manual as <u>pdf</u> (1.9 MB)
Download manual as <u>zipped postscript</u> (1.3 MB).

For related papers, also see my <u>publications</u> page (year 2001).

Anvil Plug-ins and Tools

<u>Christoph Lauer</u> at DFKI has written two plug-ins and a file format conversion tool for Anvil. The plug-ins are (1) a Sonogram tool and (2) a visual mark-up extension. The conversion tool can transform Smartkom files to Anvil format. You can download the software from DFKI's <u>NITE website</u> under "Anvil Tools".

Technical Support

If you have problems with installing or running Anvil please consult the <u>Frequently Asked Questions</u> page. If that does not help, do not hesitate to write an e-mail to <u>kipp@dfki.de</u>. In case of problems or bugs when running Anvil please include the "log.txt" file that you will find in your Anvil directory.

Thanks to DFKI, Germany, for
financing Anvil's download
service and technical support.

Page maintained by Michael Kipp

3/2/04